What Is Claimed Is:

1.   A method for changing software in a first memory area in
     a control unit for controlling operational sequences, the
     execution of old software parts being replaced by the
     execution of new software parts and the old software
     parts being written into the first memory area,
     wherein the new software parts are written into a second
     memory area and, due to a first branching in the first
     memory area, instead of the old software parts being
     executed in the first memory area, the new software parts
     are executed in the second memory area, the system,
     following the execution of the new software parts,
     branching back again into the first memory area via a
     second branching in the second memory area and the
     execution of the other software distinct from the old
     software parts being continued in the first memory area,
     the old software parts remaining in the first memory
     area.

2.   The method as recited in Claim 1, wherein the second
     memory area is only used to receive the new software
     parts.

3.   The method as recited in Claim 1, wherein the first
     branching and the second branching are implemented by at
     least one chained list.

4.   The method as recited in Claim 1, wherein as a first
     branching a start address of the new software parts is
     used, this being used to overwrite at least partially the
     old software parts.

5.   The method as recited in Claim 1, wherein as the second
     branching a start address of the additional software
     distinct form the old software parts is used.

11

6.   The method as recited in Claim 1, wherein the new
      software parts contain information that indicates which
      old software parts are to be replaced.

7.   The method as recited in Claim 1, wherein the new
      software parts contain information that indicates by
      which new software parts the old software parts are to be
      replaced.

8.   The method as recited in Claim 1, wherein the second
      memory area, in addition to at least one new software
      part, contains an address for the first branching, an
      address for the second branching and an address for the
      start of the old software part, which is to be replaced
      by the at least one new software part.

9.   The method as recited in Claim 8, wherein the second
      memory area furthermore contains the length of the at
      least one new software part and/or of the at least one
      old software part.

10.   The method as recited in Claim 8 or 9, wherein the
      elements of Claim 8 and/or the elements of Claim 9 are
      integrated into a data record in the second memory area.

11.   The method as recited in Claim 10, wherein at least two
      old software parts and the at least two new software
      parts, which replace these, are provided, the respective
      elements of Claim 8 and/or 9 being respectively
      integrated into one data record and written into the
      second memory area.

12.   The method as recited in Claim 1, wherein as the first
      memory area a first table and as the second memory area a
      second table are provided in the same memory.

12

13. The method as recited in Claim 1 or 12, wherein the first memory area and the second memory area are divided into two software sections of equal size, it being possible for a new software part to be written into each software section of the second memory area.

14. The method as recited in Claim 10 or 13, wherein every data record or every software section is provided with an identification.

15. The method as recited in Claim 14, wherein the identification for a software section in the first memory area, which contains an old software part, and the identification for the corresponding software section having the new software part, which replaces the old software part, are the same.

16. A device for changing software in a first memory area in a control unit for controlling operational sequences, the execution of old software parts being replaced by the execution of new software parts, and the old software parts being written into the first memory area, wherein means are included, which write the new software parts into a second memory area and a first branching into the first memory area, whereby, instead of the old software parts being executed in the first memory area, the new software parts are executed in the second memory area, the means also writing a second branching into the second memory area, whereby, following the execution of the new software parts, the system branches back again into the first memory area and the execution of the additional software distinct from the old software parts is continued in the first memory area, the old software parts remaining in the first memory area.

17. A control unit having a first memory area, in which old
    software parts and additional software parts distinct
    from the old software parts are stored, wherein the
    control unit contains a second memory area, which
    contains new software parts replacing the old software
    parts, wherein means are included, which write the new
    software parts into a second memory area and a first
    branching into the first memory area, whereby, instead of
    the old software parts being executed in the first memory
    area, the new software parts are executed in the second
    memory area, the means also writing a second branching
    into the second memory area, whereby, following the
    execution of the new software parts, the system branches
    back again into the first memory area and the execution
    of the additional software distinct from the old software
    parts is continued in the first memory area, the old
    software parts remaining in the first memory area.

18. A computer program having program code for performing all
    steps as recited in one of Claims 1 through 15, if the
    program is executed on a computer, in particular in a
    control unit.